

Indiana Department of Transportation
08-8-05 Posting Date
Request for Proposals Notification
Response Due Date: 08-29-05

Summary of Items Included

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

1. [Archaeological Services](#)
2. [Hazardous Materials Investigations and Remedial Plan Development](#)
3. [Hazardous Materials Investigations](#)
4. [Surveys of Karst Topography Features](#)
5. [Air Quality Analyses](#)
6. [Water Permitting](#)
7. [NEPA Document Preparation](#)
8. [Historic Bridges Inventory](#)
9. [Geographical Information System Development](#)

CENTRAL OFFICE - GEOTECHNICAL ENGINEERING

10. [Statewide Geotechnical Services](#)

CENTRAL OFFICE – HIGHWAY OPERATIONS, STRUCTURAL ENGINEERING

11. [Inspection of Pin and Hanger Bridges](#)
12. [Inspection of post tensioned concrete box girder bridges](#)
13. [Underwater Bridge Inspections](#)
14. [SR 912 Bridge Semi-annual Inspection and Testing](#)

CENTRAL OFFICE – ECONOMIC OPPORTUNITY SERVICES

15. [Disadvantaged Business Enterprises Supportive Services](#)

Consultant Meetings and Communication Policy

Please note the following policy concerning communication with the Department during the Request for Proposals (RFP) announcement and selection process:

During the time period between advertisement and the announcement of final consultant selections for the RFP Selection Process, the Department will not communicate with consultants (or their agents) regarding the status of the selection process, or entertain any communications related to marketing, etc. When completed, selections are announced through the [Department's Website](#) .

Permissible communications include project administration activities for authorized agreements, scope and negotiation activities for projects selected but not under contract, training or related activities, and technical or scope of services questions specific to projects posted with a programmatic group.

Questions regarding the Letter of Interest format or requirements may be directed to:

Jodi Williams at jwilliams@indot.state.in.us

Mailing Instructions and Addresses

Firms interested in being considered for selection should respond by sending **one (1) hardcopy and one (1) electronic copy on CD in pdf or tif format** of a Letter of Interest for each item preferred to Jodi Williams, Legal Division Consultant Coordinator. Letters of Interest must be received at both locations no later than 4:00 pm, Indianapolis time (CST) on **August 29, 2005**, to be considered.

Jodi Williams, Legal Division Consultant Services Coordinator

100 North Senate Avenue, Room N730

Indianapolis, Indiana 46204-2249

Selection Procedures

The Department will directly select consultants for each of the fifteen (15) items listed above and further described herein based on a Letter of Interest (LoI). The requirements for the LoI and the [Consultant Selection Rating Form](#) (Exhibit A below) that will be used to select consultants are shown below.

Requirements for Letters of Interest

A. General Instructions for Preparing and Submitting a Letter of Interest

1. Provide the information requested in the Letter of Interest Content (Item B below), in the same order listed, in a letter signed by an officer of the firm. Do not send additional forms, resumes, brochures, or other material unless otherwise noted in the item description.
2. Letters of Interest shall be limited to ten (10) 8½" x 11" single sided pages for Section A.1, two (2) pages for the combined Key Staff and Project Approach (Item B.6 below) and one (1) page for an Affirmative Action Certification, unless otherwise noted in the Project Description. The total limit is thirteen (13) pages. All pages including the transmittal letter count against the limit.
3. Please adhere to the following requirements in preparing and binding letters of interest:

- a. Please use a minimum font size of 12-point and maintain margins of 1" on all four sides. All text shall be black type to facilitate machine copying.
 - b. Page numbers must be centered at the bottom of each page.
 - c. Use 8½" x 11" bond paper only, no glossy paper.
 - d. Bind letters of interest by stapling at the upper left hand corner only. Do not utilize any other binding system.
 - e. Do not provide tabbed inserts or other features that may interfere with machine copying.
4. Letters of interest must be received by 4:00 pm, Indianapolis time (CST) on the due date. Responses received after the close of business on the specified due date will not be considered.

B. Letter of Interest Content

1. Provide the name, address and email address of the contact person authorized to negotiate for the associated work.
2. List all proposed subconsultants, DBE/MBE/WBE status, and the percentage of work to be performed by the prime consultant and each subconsultant. Please review the [DBE program](#) and complete the [form](#). Review the [MBE/WBE program](#) and complete the [form](#). INDOT's DBE/MBE/WBE Program Information is available at [Department's Website](#).

Indiana Department of Administration's Minority and Business Enterprises information is available at their [website](#) where a Listing of Certified Business Enterprise is available as an Excel List of Certified Companies".

3. Clearly indicate the firm's total wages and salaries for the most recently completed fiscal year. (Consultant's capacity will be limited annually to 20% of the relevant office's annual consultant budget. Consultant's capacity will also be limited annually to 200% of the consultant's annual total wages and salaries).
4. Remaining space within the ten (10) pages, Section A.1 may be utilized to provide personnel resumes, additional information concerning qualifications, etc. The Key Staff listings in Section A.2 in the 2-page project approach should include names only - not resumes.
5. List the Project Manager and other key staff members, including key subconsultant staff. Include project engineers for important disciplines and staff members that will be responsible for the work.

Address the experience of the key staff members on similar projects, and the staff qualifications relative to the required item qualifications.

6. Describe the capacity of your staff and their ability to perform the work in a timely manner, relative to present workload, and the availability of the assigned staff.

7. Provide a description of your Project Approach, not to exceed two pages. Confirm that the firm has visited the site and address your firm's technical approach, understanding of the project, cost containment practices, innovative ideas and any other relevant information concerning your firm's qualifications for the project.

Items 1 thru 6 must be included within Section A.1, the 10-page body of the LoI. Remaining space within the ten (10) pages may be utilized to provide personnel resumes or additional information concerning qualifications.

INDOT's Draft Consultant Prequalification Manual is available on [Department's Website](#).

Exhibit A

Selection Rating for RFP No. ____, Item No. ____

Consultant Name: _____

Services Description: _____

Category	Scoring Criteria	Scale	Score	Weight	Weighted Score
Disputes	Outstanding Agreement Disputes.				
	No outstanding unresolved agreement disputes > 3 mos. old.	0		20	0
	Outstanding unresolved agreement disputes more than 3 mos. old.	-3			
Past Performance	Historical Performance.				
	Timeliness score from performance database.			15	0
	Quality/Budget score on similar work from performance database.			15	0
	Quality/Budget score on all INDOT work from performance database.			10	0
Capacity of Team to do Work	Evaluation of the team's personnel and equipment to perform the project on time.				
	Availability of additional staff time.	2		20	0
	Adequate available staff time to meet the schedule.	0			
	Insufficient available staff time to meet the schedule.	-3			
Team's Demonstrated Qualifications	Technical expertise: Unique Resources & Equipment that yield a relevant added value or efficiency to the deliverable.				
	Demonstrated unique expertise and resources identified for req'd services for value added benefit.	2		15	0
	Expertise and resources at appropriate level.	0			
	Insufficient expertise and/or resources.	-3			
Project Manager	Rating of predicted ability to manage the project, based on: experience in size, complexity, type, subs, documentation skills.				
	Demonstrated experience in similar type and complexity.	2		5	0
	Experience in similar type and complexity shown in resume.	0			
	Experience in different type or lower complexity.	-1			
	Insufficient experience.	-3			
	Historical Performance of Firm's Project Management from database.			5	0
Approach to Project	Understanding and Innovation that gives INDOT cost and/or time savings.				
	High level of understanding and viable inovative ideas proposed.	2		10	0
	High level of understanding and/or viable inovative ideas proposed.	1			
	Basic understanding of the Project.	0			
	Lack of project understanding.	-3			
Location	Location of assigned staff to office relative to project.				
	Within 15 mi.	1		5	0
	16 to 50 mi.	0			
	51 to 150 mi.	-1			
	151 to 500 mi.	-2			
	Greater than 500 mi.	-3			
	For 100% state funded agreements, non-Indiana firms.	-3			
				Weighted Total	0

For categories that are not relevant to the particular agreement being evaluated leave the category score as N/A. This is to be as documented in the RFP.

The scores assigned above represent my best judgement of the consultant's abilities for the rating categories. Signed: _____

Title: _____

Date: _____

Consultant Selection Rating Form Notes Specific to Use on this RFP

1. Historical performance ratings will not be directly inputted from the database for this particular advertisement in recognition of the nature of these advertisements and due to the fact that only minimal information is available at this time for the majority of the firms and services involved. This applies to the Past Performance category and to the historical performance part of the Project Manager category. Instead, ratings will be assigned between 2 and -3 based on the professional experience of the individuals doing the scoring and based on feedback available from known references. When no professional experience is available a neutral rating of 0 will be assigned.
2. Location ratings will be assigned based on location of the consultant facility relative to the geographical coverage of the region for which the services are applicable.

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 1. Archaeological Services

Work Description: Selected consulting firm may perform some or all levels of investigation on an as-needed basis throughout the State for archaeological resources and must produce acceptable reports for resources in the project area, study area or area of potential effect

Contract Type: Negotiated Labor Rates

Maximum Contract Amount: \$300,000.00, Federal funding involved.

Term of Contract: Three years

Approximate No. of Projects: 50

DBE Goal: 3%

Required Qualifications:

1. Demonstrated ability to meet or exceed the Code of Federal Regulations, 36 CFR Part 61, Appendix A in the area of Archaeology and 312 IAC 21-3-4.
2. At a minimum, the firm must employ at least one (1) individual who meets the requirements at 36 CFR 61, Appendix A and 312 IAC 21-3-4. With respect to specializing in historic or prehistoric periods, this need not be the same individual as long as the above condition is met for each period.
3. Demonstrated ability to conduct and complete required levels of acceptable surveys of archaeological work in accordance with Indiana Department of Natural Resources (IDNR) Division of Historic Preservation and Archaeology (DHPA) guidelines.
4. Demonstrated knowledge of FHWA guidelines and regulations relative to archaeological analysis of transportation projects.
5. Identify total number of staff personnel available for field work during the field work season. It should include the number of field crews, number of persons in each crew and make up of the field crew (labor classifications).

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 2. **Hazardous Materials Investigations and Remedial Plan Development**

Work Description: The selection consultant will perform investigations and/or planning for remediation of suspected hazardous materials found on Indiana Department of Transportation (INDOT) facilities on an as-needed basis throughout the State. Indiana Department of Environmental Management (IDEM) requires that petroleum and other hazardous waste contaminated sites be cleaned-up according to EPA and IDEM regulations and rules. The major regulations and statutes governing these activities are, but not limit to; 29 CFR 1910, 40 CFR 302, 327 IAC 2, IC 13. IDEM requires Initial Site Characterization, Further Site Investigations, Corrective Action Plans (CAPs), and Quarterly Monitoring (groundwater sampling and analysis), and requires these activities be accomplished in a timely manner, usually giving INDOT 45, 60, or 90 days to comply. This agreement DOES NOT include any construction costs to actually implement the CAPs or remediation (to cleanup the sites), it only includes investigation, plans for remediation, and monitoring.

The work will be to expeditiously determine whether hazardous waste potential exists at various INDOT facilities. If testing determines that a hazardous substance is present, the consultant will develop a plan for remedial action. The specific services to be performed will include:

- Preliminary Site Investigations
 - Analyze and identify unknown substances and their properties,
 - Perform field sampling to identify type and extent of contamination,
 - Prepare report stating whether a hazardous waste is present and provide an estimate of the cost to conduct a detailed site investigation and to remedy the situation.
- Detailed Site Investigations
 - Perform comprehensive investigations to determine the characteristics and extent of contamination,
 - Investigations to be fully coordinated with the appropriate regulatory agencies, mainly IDEM, to ensure that the methodology of the investigation meets all regulatory requirements,
 - Characterize the type and extent of the contamination, usually monitoring wells will be installed to determine ground water contamination,
 - Prepare report stating the severity of the contamination and the feasibility and estimate of the costs of remediation.
- Hazardous Waste Management Plans
 - The Plan brings together the strategy for remedial action for the facility. The elements of the Plan are as follows:

- (a) The Detailed Site Investigation
- (b) Environmental Fate/Risk Assessment
- (c) Feasibility Study of the alternatives for the remedial action
- (d) The Remedial Action Plan
- The hazardous waste management plan is to be developed in full cooperation with the appropriate regulatory agencies.
- Consultant shall be responsible to safely dispose of the samples, and the cost to dispose of the samples is to be included in the price of the tests.
- Consultant shall comply with all appropriate regulations/guidance concerning sampling, testing, storage, and disposal of samples.

Contract Type: Negotiated Labor Rates

Maximum Contract Amount: \$ 500,000.00, Funding is 100% State

Term of Contract: Two years
Option to renew one time for both time and money at INDOT's discretion.

MBE and WBE Goals: 7% MBE, 10% WBE

Required Qualifications: The consultant should have experience in all facets of hazardous materials investigations, remedial action plans, hazardous materials handling, sampling, laboratory testing, and disposal. The consultant should possess a thorough understanding of hazardous materials investigation and remediation project development process.

The following information shall be included in the letter of interest for this item:

- Evidence of past experience in hazardous materials investigations.
- Evidence of past experience in remedial design of hazardous materials sites.
- Evidence of qualified staff to perform the work necessary in a timely manner.
- Evidence that the firm is registered to perform work in the State of Indiana.
- Qualifications of the team leader.
- Organization of the project team and evidence of understanding how the team will perform the scope of services desired.
- Location of offices.

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 3. Hazardous Materials Investigations

Work Description: The selected consultant will, on an as-needed basis throughout the State, conduct Phase I and Phase II Environmental Site Assessments (ESA) of properties adjacent to INDOT projects whose operations may have impacted the Right of Way.

The Screening and Phase I ESA are investigations into the current and/or past practices using readily available regulatory data bases as well as historical sources including but not limited to aerial photographs, fire insurance maps, land title records, topographic maps, local (city and/or county) directories, zoning/land use records, etc. to assess the overall likelihood of involvement of hazardous substances and/or petroleum products which may have occurred on a given parcel of land. If the Screening or Phase I indicate a significant level of concern with involvement of regulated substances, then a Phase II ESA may be required.

The Phase II ESA is an intrusive investigation in which soil and/or groundwater samples are obtained and analyzed in conformance with Environmental Protection Agency (EPA) protocol, particularly SW-846 methodologies. In some situations non-intrusive test methods will be utilized and may include geophysical surveys such as ground penetrating radar or similar methods.

Contract Type: Negotiated Labor Rates

Maximum Contract Amount: \$300,000.00, Federal funding involved.

Term of Contract: Three years

Approximate No. of Projects: 40

DBE Goal: 15%

Required Qualifications: Consulting firms submitting proposals to perform ESA Screening, Phase I ESA and/or Phase II ESA shall have at least one person on staff that meets the following criteria:

Education - The person shall have an Associates Degree, Bachelor of Science Degree or Bachelor of Arts Degree in engineering, chemistry, geology or closely related field.

Qualifying Experience - Three years experience in conducting ESAs,

with a Bachelor's degree or two years with a graduate degree and the successful completion of at least two Phase I ESAs and two Phase II ESAs. Or, ten years experience in conducting ESAs, with an Associates Degree.

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 4. Surveys of Karst Topography Features

Work Description: The selected consultant will perform Karst studies, on an as needed basis throughout the State, for the purpose of delineating guidelines for construction of transportation projects in Karst regions of the State. The studies include identification and treatment of drainage in karst regions. Karst areas are regions characterized by the presence of limestone or other soluble rocks, where drainage has been largely diverted into subterranean routes. Sinkholes, sinking streams, large springs, and caves dominate the topography of such areas.

Contract Type: Negotiated Labor Rates

Maximum Contract Amount: \$200,000.00, Federal funding involved.

Term of Contract: Three years

Approximate No. of Projects: 8

DBE Goal: 15%

Required Qualifications:

The consultant firm must show experience in karst studies. One way this can be demonstrated is to have undertaken at least one karst study that complies with INDOT Karst Memorandum of Agreement (MOU). INDOT will accept other proof of capability on a case by case basis. This should include showing the ability to identify, study and design treatment of draining in karst regions related to the construction of transportation projects. The consultant firm must be able to identify and characterize karst features and their relationships utilizing maps, dye-tracing, and/or other geotechnical information to determine subsurface flow of water in the project area and surface drainage patterns of the area. The consultant firm must be able to demonstrate that they can calculate estimates of annual pollutant loads from the highway and drainage within the rights-of-way, including prior to, during and post construction estimates. The consultant firm must be able to demonstrate the ability to design and treat highway runoff to meet the standards of the monitoring and maintenance plan.

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 5. Air Quality Analyses

Work Description: The selected consultant will perform air quality analysis on an as needed basis throughout the State for highway projects where construction causes an increase in traffic sufficient enough to create an impact on the surrounding air quality. The analysis must quantify these impacts for carbon monoxide only in non attainment areas.

Contract Type: Negotiated Labor Rates

Maximum Contract Amount: \$50,000.00, Federal funding involved.

Term of Contract: Two years
Option to renew for one additional year and up to an additional \$25,000 at INDOT's discretion.

Approximate No. of Projects: 10

DBE Goal: None

Required Qualifications:

Consulting firms submitting proposals must have at least one person on staff that meets the following requirements:

Education - The analyst shall have a Bachelor of Science degree in Engineering, Environmental Sciences or Meteorology, including three 3-hour courses relating to Air Quality (i.e., Meteorology, Engineering Principles or Dispersion Modeling); or a Bachelor of Arts degree with course work related to Transportation Planning, at least one 3-hour course in computer sciences.

Qualifying Experience - Three years with a Bachelor of Science or Bachelor of Arts degree or two years with a graduate degree (one year if research or dissertation was related to Air Quality principles).

Qualifying experience is considered to be work associated with Air Quality principles and modeling techniques and must include the following:

1. Research or documentation which demonstrates knowledge of air pollution meteorology, dispersion modeling and engineering principles.
2. Affiliation with a professional society related to Air Quality.
3. One year experience in the use of current USEPA and FHWA accepted

computer models (i.e., mobile source emissions model and dispersion model) in the assessment of impacts of construction projects on the ambient air quality, including mitigation measures as required by the Clean Air Acts Amendments of 1990.

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 6. Water Permitting Services

Work Description: The selected consultant will prepare and obtaining water permits for INDOT projects on an as needed basis throughout the State. The types of permits that will be required include the following: Army Corps Section 404/10 Permits, Coast Guard Permits, Construction in a Floodway Permits, Lake Preservation Act Permit, Navigable Waterway Permit, Rule 5 Permit, and Section 401 Water Quality Certification.

Maximum Contract Amount: \$250,000.00, Federal funding involved

Contract Type: Negotiated Labor Rates

Term of Contract: Two years

Approximate No. of Projects: 100

DBE Goal: 15%

Required Qualifications: Demonstrated experience in water permitting

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 7. NEPA Document Preparation

Work Description: The selected consultant will develop the environmental analyses on an as needed basis throughout the State by working closely with the engineers responsible for the development of engineering assessment reports. This will entail the selected Consultant attending the initial field meeting to aid the engineers in identification of sensitive environmental concerns.

Based on the engineering analyses and Engineer's Report, the selected consultant will be responsible for all activities required to successfully complete the environmental documentation required by the National Environmental Policy Act (NEPA).

The consultant will be responsible for holding any necessary public meetings, coordination meetings and resource agency meetings.

The consultant will act as INDOT's representative at any hearings held on the assigned projects.

Contract Type: Negotiated Labor Rates

Maximum Contract Amount: \$1,500,000.00, Federal funding involved

Term of Contract: Two years
Option to renew one time for both time and money at INDOT's discretion.

Approximate No. of Projects: 40

DBE Goal: 15%

Required Qualifications:

1. **Education** - The firm must have a graduate of a college or university with a bachelor's degree within the field of environmental science, planning, engineering or a closely related field.
2. **Qualifying experience** - The firm must have an individual who has three years work experience with a Bachelor of Science or Arts degree or two years work experience with a Master of Science or Arts degree in order to have qualifying experience.

Qualifying experience is considered to be work and training having to do with the preparation and coordination of acceptable Environmental Assessments and Environmental Impact Statements or Categorical Exclusions. "Acceptable" means documents that have been

formally accepted by INDOT or transportation agencies in other states and FHWA; and, for CEs, must be approved documents with minimum comments or revisions. CEs that require multiple revisions and resubmissions will not be considered acceptable as a prequalified document. Acceptable documents must meet all the requirements for environmental documentation spelled out in the Environmental Manual, FHWA Guidance and other applicable Federal and state regulations and laws.

Qualifying experience must also include the following:

1. Project manager must have successfully completed INDOT's NEPA training.
2.
 - A. The project manager must have specific experience in preparation or staff member(s) with specific experience in EA/EIS preparation.
 - B. Project manager or staff member(s) with specific experience in preparation of at least four (4) CEs - these ***must*** meet the requirements specified above.

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 8. Historic Bridges Inventory

Work Description:

The selected consultant firm will provide professional services for a study of bridges (under INDOT jurisdiction, other public agency jurisdiction, and those located on other public property) in the State built through 1965. The goal of this study is the identification of bridges in Indiana that are included in, or eligible for inclusion in, the National Register of Historic Places (NRHP), including their historic context. The information will be utilized by INDOT, the Federal Highway Administration Indiana Division (FHWA Indiana), and the Indiana State Historic Preservation Officer (INSHPO) to allow for opinions of NRHP eligibility. Further recommendations shall be made regarding each bridge's uniqueness or typicality as a particular bridge type and regarding suitability for preservation.

The study will be divided into two phases with one (1) consultant being selected to carry out both phases. Phase I of the study will focus on bridges (approximately 3443 bridges) constructed through 1942. Phase II of the study will focus on bridges (approximately 3856 bridges) constructed from 1943 through 1965. The Phase I and Phase II evaluations may be completed consecutively or concurrently. The Phase I evaluations are more critical given that many of these bridges are eligible for the NRHP and many of these structures have been lost in recent years. Phase I of the study shall be accomplished in one (1) year from the Notice to Proceed. Phase II of the study shall be accomplished in two (2) years from the Notice to Proceed.

Part 1 of the Agreement will extend through Task 4. Part 1 will be compensated on a cost plus fixed fee basis. The scope of work for succeeding tasks shall be finalized as the current task is completed. Task 4 must include all bridges built through 1942 (minimum) and built through 1965 (desirable). However, Phase I of the study shall be accomplished in one (1) year from the Notice to Proceed.

The consultant shall at a minimum have sufficient staff that meet the Secretary of the Interior's Historic Preservation Professional Qualification Standards for Architectural History, Engineering, Historic Architecture, Historic Preservation, or History published in the Federal Register at 62 FR 33,707 through 33,723 on June 20, 1997 to perform the work in a professional manner within the desired timeframe. The qualifications define the minimum education and experience required to perform identification, evaluation, registration, and treatment activities. Preferably this staff will also have a strong background in the history of bridge structures of all specified time periods as outlined in detail in the Statement of Interest section of this RFP.

DRAFT SCOPE OF WORK

Task 1. Develop Contextual Study of Historic Bridges in Indiana—The consultant shall develop a historic context study for bridges in Indiana. This study should include a history of settlement and transportation in Indiana with an emphasis on automobile transportation and bridge engineering and design. The study should include a context for the historical development of transportation networks and systems at the local, regional, and state levels. The study shall also include a history of the evolution of the Indiana State Highway Commission into the Indiana Department of Transportation.

Research efforts shall include, but not be limited to, a review of the secondary literature, interviews with bridge engineers, and a review of INDOT's annual reports, bridge maintenance files, and bridge construction drawings. Consultation of county and municipal files shall also be completed as appropriate. Attention shall also be given to important bridge designers and builders (public and private sector) of Indiana's bridges. Federal, inter-state, county, and municipal public works construction campaigns shall also be studied. In addition, attention shall be given to the development of various interstate highway associations over the years. Roadways with such associations include the National Road, the Lincoln Highway, and the Dixie Highway.

The completed historic context study will be a narrative that includes a history of transportation, a history of INDOT, a history of bridge technology, and an understanding of bridge typology including structural configurations and building materials. The study shall examine these issues up to present times.

Task 2. Develop Methodology for Bridge Inventory—It is not feasible or practical to field survey all of the bridges built through 1965. The consultant should develop a method for separating the bridge population into subgroups based upon type/level of data needed for their evaluation. The consultant shall also establish a procedure for addressing previously evaluated bridges and State and National Register eligible/listed bridges. The consultant shall identify and present rationale for what type of data will be needed for the evaluation of each bridge subgroup. The consultant shall develop and discuss procedures for how the data will be collected and documented for each subgroup.

Task 3. Develop Evaluation Criteria for National Register Eligibility—Using the Historic Context and National Register Criteria for Evaluation, the consultant shall develop bridge evaluation criteria and implementation procedures.

Task 4. Conduct Bridge Inventory—The consultant shall collect bridge inventory data for all subgroups, including field survey and photo documentation for those bridges identified for intensive field survey. The consultant shall develop a Historic Bridge Inventory Database for all bridges built prior to and including the year 1965. The Database will include relevant National Bridge Inventory (NBI) data elements and additional relevant fields (e.g. unique design features, Indiana Historic Sites and Structures [IHSS] inventory numbers, National Register eligibility determinations, GPS

data, etc.) not included in the NBI. The Database must be recorded electronically in Access with Excel spreadsheet export capability. Identification of selected NBI data elements and new data elements not presently in the NBI must be coordinated with INDOT, FHWA Indiana, and INSHPO.

Task 5. Analyze Inventory Data to Make Eligibility Determinations—The consultant shall apply evaluation criteria to identify and recommend bridges potentially eligible for the National Register of Historic Places. The consultant shall prepare a brief summary report providing documentation of the rationale for determination of the significance of all the bridge subgroups. This summary will include rationale for decisions of potential eligibility as well as decisions of non-eligibility. National Register eligibility status shall be a field in the Historic Bridge Inventory Database.

Task 6. Develop Criteria for Identification of “Select” and “Non-Select” Bridges—All bridges that are listed in the NRHP or are determined to be eligible for inclusion in the NRHP will be further evaluated and placed into one of two categories, “Select” or “Non-Select” bridges, as outlined in the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, and the Indiana State Historic Preservation Officer Regarding the Management and Preservation of Indiana’s Historic Bridges* (Agreement) that is currently under development. “Select” bridges will include the bridges that are the best examples of their type in Indiana and are suitable candidates for preservation. “Non-Select” bridges will include those bridges that may not be the best examples of a bridge type or are not suitable candidates for preservation.

Using the Historic Context, National Register Criteria for Evaluation and the data in the Historic Bridge Inventory Database, the consultant shall develop “Select” and “Non-Select” evaluation criteria and implementation procedures.

Task 7. Analyze Inventory Data to Make “Select” and “Non-Select” Determinations—The consultant shall apply “Select” and “Non-Select” criteria to identify and recommend bridges for each category. The consultant shall prepare a brief summary report providing documentation of the rationale for determination of the status of each of the bridges. This summary will include rationale for decisions of “Select” and “Non-Select” status. “Select” and “Non-Select” status shall be a field in the Historic Bridge Inventory Database.

Task 8. Public Involvement—This task shall be undertaken concurrently with the previous tasks as appropriate. Information from this study will be presented to the public, including special interest groups, local governments, and other historic preservation and transportation stakeholders, for comment and input several times during the course of the work. Specific special interest groups that shall be included in the public input process include the Historic Bridge Task Group (A group established by FHWA Indiana to develop the Agreement. The group includes representatives from Historic Landmarks Foundation of Indiana [HLFI], the Historic Spans Task Force, INSHPO, INDOT, the Advisory Council on Historic Preservation, the Indiana Association of County Commissioners, the Indiana Association of County Highway

Engineers and Supervisors, the Indiana Local Technical Assistance Program, and Senator Lugar's Office) and the Historic Spans Task Force (A group established by HLF that works to safeguard historic bridges).

The consultant shall, as directed by INDOT, prepare presentations and materials to utilize in outreach to the public. Whether the consultant or INDOT's Public Hearings staff will present these materials will be at INDOT's discretion. Key decision making points where comments from the general public will be solicited include:

- Review of the list of National Register Eligible and Non-Eligible Bridges
- Review of the "Select" and "Non-Select" criteria
- Review of the list of "Select" and "Non-Select" Bridges

Task 9. Supply Information for Creation of a Project Website—This task shall be undertaken concurrently with the previous tasks as appropriate. As part of the public involvement campaign, the consultant shall aid INDOT's Systems Technology staff, as directed, with the creation of a project website. The level of involvement by the consultant for the website creation will be at INDOT's discretion. The maintenance of the website will be the responsibility of INDOT.

Task 10. Meetings and Project Milestones—Upon contract award, the consultant shall meet with INDOT, the consultant, FHWA Indiana, and INSHPO to review the scope of services, schedule, and deliverables for the project. After this kick-off meeting, the consultant shall develop a refined schedule with meetings and project milestones outlined. Events for which meetings shall be held will include the completion of specified tasks in the study. Meetings may be waived, or others required, by INDOT. The consultant will provide INDOT with weekly progress reports via email.

Task 11. Development of the Agreement—The consultant may be called upon to assist in the preparation and completion of the *Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, and the Indiana State Historic Preservation Officer Regarding the Management and Preservation of Indiana's Historic Bridges*. Execution of this task would be closely coordinated with INDOT, FHWA Indiana, INSHPO, and the Historic Bridge Task Group.

Contract Type: Cost plus Fixed Fee, Federal funding involved

Term of Contract: Two years

DBE Goal: None

Required Qualifications:

Consultant Qualifications and Prior Experience – Include a discussion of qualifications and recent related experience of the key personnel in your firm who will be assigned to work on this project. Include your firm's experience only if persons who will work on

this project contributed to that experience. Emphasis should be placed on experience directly applicable to this project by persons in your firm who will be actively engaged in this project and who will play a significant role.

Project Statement and Schedule – Provide a statement of your understanding of the work elements involved in this project with an outline of your proposal to achieve each work element. Provide a schedule for your anticipated work on this project, including projected dates of major milestones.

The consultant must have expertise, knowledge, and understanding in these areas:

- Demonstrated experience conducting large-scale historic resource surveys
- Demonstrated experience evaluating recent past resources (those structures built within the past 50 years), with an emphasis on transportation related resources
- Demonstrated experience developing statewide historic contexts
- Demonstrated knowledge and familiarity with the development of bridge materials and construction techniques
- Demonstrated experience conducting NRHP evaluations for bridges
- Demonstrated knowledge and familiarity of National Bridge Inventory (NBI) data
- Demonstrated knowledge and familiarity of geographic information system (GIS) data gathering techniques for field survey
- Demonstrated experience with public involvement techniques and procedures for large-scale historic resource surveys

Provide resumes for all key personnel (including any sub consultants). Key personnel must have degrees and demonstrated experience in Architectural History, Engineering, Historic Architecture, Historic Preservation, or History. Key personnel must demonstrate knowledge of the history and technology of bridge building and design. Overall team experience in conducting similar historic bridge inventories and/or developing management plans for historic bridges for transportation agencies is highly desirable.

Provide three references (name and phone number) from other State DOTs that have first-hand knowledge of the project manager's competency to manage a project of this caliber. INDOT reserves the right to request information from any references so named.

Provide a list of up to ten (10) projects completed within the last five (5) years or currently in progress that are directly relevant to this project.

CENTRAL OFFICE – ENVIRONMENTAL SERVICES

Item No. 9. Geographical Information System Updating and Expansion

Project Description: There are currently about 220 layers contained in the state-wide GIS. Updated aerials need to be added, the existing layers need to be updated, and new layers added as needed. Additional layers will be extracted from existing datasets and incorporated into the GIS after revising/adding the metadata. The consultant will coordinate with the POLIS Center, the clearinghouse for distributing geographic information system data, as the Geographic Information System Atlas for Indiana is created and disseminated. The information will be made available in three formats: (1) simple HTML files that allow users with low-speed Internet connections (such as modems) to access short descriptions of the layers and their metadata; (2) Macromedia Flash applications that allow users with high-speed connections to view images of the layers, access associated metadata, and download files; and (3) an ArcIMS application that will allow users with high-speed connections to interact with the data and create their own customized maps. As individual layers are approved for release by INDOT, they will be placed on the Indiana Geological Survey website in each of these three formats.

Contract Type: Negotiated Labor Rates

Term of Contract: Two years
Option to renew one time for both time and money at INDOT's discretion.

Maximum Contract Amount: \$250,000.00, Federal funding involved.

Existing GIS: Existing GIS are available on IGS's website at
<http://adamite.igs.indiana.edu/arcims/statewide/index.html>

DBE Goal: None

Qualifications: Demonstrated experience in GIS and revising/adding the metadata.

Deliverables: Update all existing and adding additional GIS layers completed within two years of notice to proceed.

CENTRAL OFFICE – GEOTECHNICAL ENGINEERING

Item No. 10. Statewide Geotechnical Services

Work Description: The selected consultants will perform Geotechnical Investigations on an as needed basis throughout the State. This geotechnical investigation includes the subsurface investigation for roadway, bridges, retaining structures, landslides, pavement subgrade, mine subsidence, and other special foundation investigations. This is normally done by performing borings, field testing, laboratory testing and performing engineering analysis and recommendation to aide in the preliminary and final design as well as during construction of a project in locations within the State of Indiana.

Geotechnical Consultants will be selected to perform Geotechnical Investigations at various locations throughout the State. One specialty contract work will include static and dynamic load tests, integrity testing, etc. on piles and drilled shafts during design and construction. These Consultants will be chosen based on a merit list which will be developed using INDOT Selection Rating Criteria. No one Consultant can have contracts more than 20% of the total Geotechnical Consultants Services Budget.

Contract Type: Negotiated-Unit Prices, Federal funding involved.

Maximum Contract Amount: One (1) contract @ \$300,000.00
Five (5) contracts @ \$700,000.00, each
Three (3) contracts @ \$400,000.00, each

Term of Contract: Two years
Option to renew one time for both time and money at INDOT's discretion.

Approximate No. of Projects: Approximately 20 projects for each contract

DBE Goal: 10%

Required Qualifications: All consultants should be from the list of INDOT Approved Geotechnical Consultants who have completed at least 5 projects (Consultant should attach a list of 5 projects) in Indiana and reviewed by INDOT Geotechnical Section within last five years.

CENTRAL OFFICE - HIGHWAY OPERATIONS, STRUCTURAL ENGINEERING

Item No. 11. Inspection of Pin and Hanger Bridges

Work Description: A Consultant will be required to perform In-Depth Inspections and Testing of Indiana Bridges with Pin and Hanger Connections.

The work shall involve conducting: In-Depth Inspections and Testing of eight (8) INDOT Bridges, four (4) Toll Road Bridges, and three (3) bridges that belong to other entities, with Pin and Hanger Connections

The testing shall be conducted using Ultrasonic (UT) Inspection methods, and other Non-Destructive methods as needed, by an American Society of Non-Destructive Testing (ASNT) Level-III Ultrasonic Inspector, working in close consultation with a qualified NBIS Team Leader Bridge Inspector, who is a Professional Engineer, licensed in the State of Indiana.

This work will need to be performed in compliance with INDOT, FHWA, AASHTO, and NBIS requirements.

Contract Type: Negotiated Labor Rates, Federal funding involved.

Term of Contract: One year

Approximate No. of Projects: One Inspection Project, involving up to 13-bridges.

DBE Goal: 5%

Required Qualifications: Consultant must have engineers and assistants on staff that are Qualified NBIS Inspection Team Leaders, experienced and proficient at conducting In-Depth, Arms-Length Inspections of Pin and Hanger Type Connection Details. The Consultant must also have Non-Destructive Testing Technicians on staff, or available that are qualified and have extensive field testing experience on bridge details in general and the Pin and Hanger Type Connection Details in particular, and which they have worked closely with in the past on similar projects.

CENTRAL OFFICE - HIGHWAY OPERATIONS, STRUCTURAL ENGINEERING

Item No. 12 Inspection of Post Tensioned Concrete Box Girder Bridges

Work Description: In-Depth Inspection of Nine Bridges:
INDOT's Post-tensioned Concrete Box Girder Bridges,
(Cast-in-place and Segmental type construction)

It is anticipated that this will be a two year contract with the option to extend the contract twice, each for an additional two-year period. (INDOT's Plan of Action for these bridges calls for a 6-year inspection cycle, involving 3-In-Depth Inspections, done by Consultants, in addition to 3-Biennial Visual Inspections conducted by INDOT Inspectors.)

A Consultant shall be required to perform In-Depth Inspections and NDT of selected portions of the following bridges.

26-79-6961 EBL	<u>over</u> the Wabash R. & CSX & N&S RR.....	has had Past Consultant Inspection
26-79-6961 JWBL	<u>over</u> the Wabash R. & CSX & N&S RR.....	has had past Consultant Inspection
47-61-6570	<u>over</u> Turkey Run.....	No prior Consultant Inspection
136-86-6086 A	<u>over</u> the Wabash River.....	No prior Consultant Inspection
I70-86-6426 C	I70 WB Ramp <u>over</u> I-70.....	has had Past Consultant Inspection
I465-117-6463 A	I70 WB Ramp <u>over</u> I-465 & E. 21 st Str.....	has had Past Consultant Inspection
(912)I80-5-7823	SR-912 EBL Ramp <u>over</u> I-80, SR-912 & Ramps.....	No prior Consultant Inspection
(912)I80-5-7828	SR-912 WBL Ramp <u>over</u> I-80, SR-912 & Ramps.....	No prior Consultant Inspection
50-40-0917 C	<u>over</u> the Vernon Fork of the Muscatatuck River.....	No prior Consultant Inspection

These Post-tensioned Concrete Box Girders are considered as “Confined Spaces”, and proper confined space regulations will need to be followed during all interior inspection and/or testing operations. In addition, these bridges are classified as “COMPLEX Bridges” as outlined in the 2005 NBIS Regulations.

This 1st Phase Inspection will primarily be a visual inspection of the interior and exterior surfaces, along with a “profile” survey along the length of each bridge to check for any sags or deflections.

Some selected NDT will be conducted as determined at a Scoping Meeting with the selected Consultant, however most NDT will wait until later phases and shall be based on the findings of this 1st Phase work.

A plan for testing and monitoring bridge I70-86-6426C along with a possible “salvage plan” will be developed to take advantage of the removal of this bridge, to learn how +-28 years of service have affected the post-tensioning elements of this first-generation post-tensioned bridge. This information will help in the overall evaluation of the remaining INDOT bridges of this type.

A comprehensive Inspection and NDT Plan will be developed for use in the following two-Phases of the In-Depth Inspections, as well as for future six-year inspection cycles. A cost estimate will be made to conduct the following two-Phases, so that INDOT can make appropriate

budget arrangements.

This work shall be performed in compliance with INDOT, FHWA, AASHTO, and NBIS requirements.

Contract Type: Negotiated Labor Rates, Federal funding involved.

Term of Contract: This will be a contract for a period of two (2) years. An option to renew and renegotiate the contract two times for future re-inspections in two-years and four-years from the original inspection may also be incorporated, in order to complete an entire “6-year In-Depth Bridge Inspection Plan” for these bridges.

Approximate No. of Projects: One Inspection Project, involving 9-bridges.

Existing Plans: Existing plans are available in the Records Unit of the Division of Design, Room N642.

Existing Studies: Existing In-Depth Inspection Reports are available in:

1. the Central Office Bridge Inspection Unit, Division of Program Development.
2. the District Bridge Inspection Offices that are responsible for these bridges.

DBE Goal: 5%

Required Qualifications: Consultant must have engineers and assistants on staff that are Qualified NBIS Inspection Team Leaders and experienced and proficient at conducting In-Depth, Arms-Length Inspections of Concrete Post-Tensioned Box Girder Bridge Structures, and Confined Space Inspections.

CENTRAL OFFICE - HIGHWAY OPERATIONS, STRUCTURAL ENGINEERING

Item No. 13 Underwater Bridge Inspections

Work Description: INDOT Underwater Bridge Inspections

A Consultant will be required to perform Underwater Bridge Inspections on all of INDOT's Bridges that come due for these types of Inspections over a six-year period, in order to keep INDOT in compliance with the National Bridge Inspection Standards, (NBIS).

This contract will entail the Underwater or In-water Inspections of 300 to 340 INDOT bridges and any needed re-inspections that come due over the period of the contract.

An NBIS Qualified Team Leader MUST be present, and actively participating in all of the inspections and he MUST be a Professional Engineer licensed in the State of Indiana.

This work will need to be performed in compliance with INDOT, FHWA, AASHTO, and NBIS requirements.

Contract Type: Negotiated Unit Prices, Federal funding involved.

Term of Contract: Two years with an option to renew two times for both time and money at INDOT's discretion.

Approximate No. of Projects: One Inspection Project, involving 300 to 340 bridges.

DBE Goal: None

Required Qualifications: The Consultant MUST have Certified Divers that are NBIS Qualified Team Leaders. At least one of the Team Leaders MUST be a Professional Engineer licensed in the State of Indiana, and this diver MUST be present and actively participating in all of the inspection operations in the water at each bridge.

CENTRAL OFFICE - HIGHWAY OPERATIONS, STRUCTURAL ENGINEERING

Item No. 14 SR 912 Bridge Semi-annual Inspection and Testing

Work Description: In-Depth Monitoring Inspection and Selected Testing:
SR-912 Bridge & 4-Ramp Bridges over the Indiana Harbor Canal

A Consultant will be required to perform In-Depth Monitoring Inspections of selected portions of the bridge(s).

The work shall involve conducting: In-Depth Monitoring Inspections of selected “Hot spots” on the exterior and interior of the Post-Tensioned Concrete Box Girders of these structures, that were identified in the 2004-2005 Inspection and Testing project on these bridges. In addition, a limited amount of selected Non-Destructive Testing shall be done to expose and evaluate the condition of the grout and post-tensioning stands in the bridges. This work will need to be performed in compliance with INDOT, FHWA, AASHTO, and NBIS requirements.

Contract Type: Negotiated Labor Rates, Federal funding involved.

Term of Contract: Three years

Inspections need to be done in Dec., 2005, July, 2006, Dec., 2006, July, 2007, Dec., 2007, July, 2008, or until this bridge has been retro-fitted in a Bridge Rehab Project, estimated to be done in +- 2008 or 2009.

An option to renew the contract one time for time and money for additional monitoring inspections may also be incorporated, in order to continue monitoring in the event that the rehabilitation project is delayed.

Approximate No. of Projects: One Inspection Project, involving 5-bridges.

Existing Plans: Existing plans are available in the Records Unit of the Division of Design, Room N642.

Existing Studies: Existing In-Depth Inspection Report is available in:

1. the Central Office Bridge Inspection Unit, Division of Program Development.
2. the Bridge Rehabilitation Unit, the Division of Design.
3. the LaPorte District Bridge Inspection Office.

DBE Goal: 10%

Required Qualifications: Consultant must have engineers and assistants on staff that are Qualified NBIS Inspection Team Leaders and experienced and proficient at conducting In-Depth, Arms-Length Inspections of Concrete Post-Tensioned Box Girder Bridge Structures, and Confined Space Inspections.

Item No. 15 DISADVANTAGED BUSINESS ENTERPRISES SUPPORTIVE SERVICES